

INTERNATIONAL SEARCH REPORT

International Application No

IB2004/004463

A. CLASSIFICATION OF SUBJECT MATTER C12P13/08 C12N9/12 C12N15/54 C12N1/21 //(C12N9/12, C12R1:15)		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) C12P C12N		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, PAJ, BIOSIS, WPI Data, EMBASE, FSTA, EMBL		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication where appropriate of the relevant passages	Relevant to claim No
X	WO 01/07626 A (O'DONOHUE, MICHAEL, R ; HANKE, PAUL, D ; ARCHER-DANIELS-MIDLAND COMPANY) 1 February 2001 (2001-02-01) the whole document	1-3, 9-23, 28-41, 44,45, 48,49, 53,54
X	MARX ET AL: "Response of central metabolism in Corynebacterium glutamicum to the use of an NADH-dependent glutamate dehydrogenase" METABOLIC ENGINEERING, ACADEMIC PRESS,, US, vol. 1, 1999, pages 35-48, XP002154493 ISSN: 1096-7176 the whole document	1-3, 9-14,16, 17,23, 29,30, 32,33, 38-41, 48,49, 53,54
-/-		
<div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> Further documents are listed in the continuation of box C <input checked="" type="checkbox"/> Patent family members are listed in annex </div>		
<div style="display: flex;"> <div style="flex: 1;"> <p>* Special categories of cited documents</p> <p>¹A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>¹E* earlier document but published on or after the international filing date</p> <p>¹L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>¹O* document referring to an oral disclosure, use, exhibition or other means</p> <p>¹P* document published prior to the international filing date but later than the priority date claimed</p> </div> <div style="flex: 1;"> <p>¹T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>²X* document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>²Y* document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>²&* document member of the same patent family</p> </div> </div>		
Date of the actual completion of the international search	Date of mailing of the international search report	
20 January 2006	27/01/2006	
Name and mailing address of the ISA European Patent Office, P B 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel (+31-70) 340-2040, Tx 31 651 epo nl Fax (+31-70) 340-3016	Authorized officer Wi ame, I	

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X	<p>PARK S M ET AL: "METABOLIC AND PHYSIOLOGICAL STUDIES OF CORYNEBACTERIUM GLUTAMICUM MUTANTS" BIOTECHNOLOGY AND BIOENGINEERING, INTERSCIENCE PUBLISHERS, LONDON, GB, vol. 55, no. 6, 1997, pages 864-879, XP000999162 ISSN: 0006-3592 the whole document</p>	<p>1-3 , 9-14 , 16 , 23, 29, 30, 32, 38-41 , 48, 49, 53, 54</p>
X	<p>wo 01/00844 A (BASF AG) 4 January 2001 (2001-01-04)</p> <p>abstract ; claim 36 SEQ ID NO: 185, 186 page 61 page 7, line 13 - line 29</p>	<p>22-28, 38-41, 46-54</p>
X	<p>wo 02/081631 A (DODGE TIMOTHY C ; GENENCOR INT (US) ; VALLE FERNANDO (US)) 17 October 2002 (2002-10-17) figures 27, 28; example 7</p>	<p>22-29, 44, 45, 48-52</p>
A	<p>DOMINGUEZ H ET AL: "CARBON-FLUX DISTRIBUTION IN THE CENTRAL METABOLIC PATHWAYS OF CORYNEBACTERIUM GLUTAMICUM DURING GROWTH ON FRUCTOSE" EUROPEAN JOURNAL OF BIOCHEMISTRY, BERLIN, DE, vol. 254, no. 1, 15 May 1998 (1998-05-15), pages 96-102, XP000960354 ISSN: 0014-2956 the whole document</p>	<p>1-54</p>
A	<p>KIEFER P ET AL: "Influence of glucose, fructose and sucrose as carbon sources on kinetics and stoichiometry of lysine production by Corynebacterium glutamicum." JOURNAL OF INDUSTRIAL MICROBIOLOGY & BIOTECHNOLOGY, JUN 2002, vol. 28, no. 6, June 2002 (2002-06), pages 338-343, XP002287975 ISSN: 1367-5435 abstract ; figure 5 page 341, column 1, paragraph 1</p>	<p>1-54</p>
A	<p>SAHM H ET AL: "PATHWAY ANALYSIS AND METABOLIC ENGINEERING IN CORYNEBACTERIUM GLUTAMICUM" BIOLOGICAL CHEMISTRY, XX, XX, vol. 381, no. 9/10, September 2000 (2000-09), pages 899-910, XP000979510 ISSN: 1431-6730 abstract ; table 2</p>	<p>1-54</p>

INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	MARX ACHIM ET AL: "Determination of the fluxes in the central metabolism of <i>Corynebacterium glutamicum</i> by nuclear magnetic resonance spectroscopy combined with metabolite balancing" BIOTECHNOLOGY AND BIOENGINEERING, vol. 49, no. 2, 1996, pages 111-129, XP002287973 ISSN: 0006-3592 abstract; figure 3 page 115, column 1, paragraph 1 - column 2 -----	13
A	WO 03/014330 A (KREUTZER CAROLINE ; DEGUSSA (DE); BATHE BRIGITTE (DE); MOECKEL BETTINA) 20 February 2003 (2003-02-20) abstract; example 1 -----	14-17, 30-33
P,X	KIEFER PATRICK ET AL: "Comparative metabolic flux analysis of lysine-producing <i>Corynebacterium</i> <i>glutamicum</i> cultured on glucose or fructose." APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol. 70, no. 1, January 2004 (2004-01), pages 229-239, XP002287976 ISSN: 0099-2240 the whole document -----	1-13, 18, 20, 22-29, 34, 36, 38-41, 44-54

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

/IB2004/004463

Patent document cited in search report		Publication date	Patent family- member(s)	Publication date
WO 0107626	A	01-02-2001	AU 6362200 A	13-02--2001
			BR 0012712 A	09-04--2002
			CA 2377693 A1	01-02--2001
			CN 1372597 A	02-10--2002
			EP 1208205 A2	29-05--2002-
			JP 2003521888 T	22-07--2003
			MX PA02000729 A	20-08--2002
			NZ 517295 A	30-04--2004
WO 0100844	A	04-01-2001	AU 783708 B2	24-11--2005
			CA 2383875 A1	04-01--2001
			CZ 20014659 A3	11-09--2002
			JP 2003517291 T	27-05--2003
			MX PA01012842 A	09-07--2002
			SK 18872001 A3	03-12--2002
			TR 200103706 T2	21-10--2002
			TR 200500004 T2	21-03--2005
WO 02081631	A	17-10-2002	CA 2443145 A1	17-10-2002
			EP 1373480 A2	02-01-2004
			JP 2005503769 T	10-02-2005
WO 03014330	A	20-02-2003	BR 0211745 A	13-10-2004
			CA 2456416 A1	20-02-2003
			CN 1541274 A	27-10-2004
			EP 1414986 A2	06-05-2004